

Title (en)
FOLDING PORTABLE TELEPHONE

Title (de)
KLAPPBARES TRAGBARES TELEFON

Title (fr)
TELEPHONE PORTABLE PLIANT

Publication
EP 1870958 A4 20080521 (EN)

Application
EP 06731497 A 20060410

Priority
• JP 2006307550 W 20060410
• JP 2005114731 A 20050412

Abstract (en)
[origin: EP1870958A1] A folding mobile phone is provided that improves the antenna characteristics of both of a main antenna and a sub-antenna. The folding mobile phone comprises at least an upper housing 1, a lower housing 2, a hinge unit 3, a main antenna 4 located in the vicinity of the hinge unit 3 of the lower housing 2, a sub-antenna 5 located at the lower end of the lower housing 2, and a control unit for selecting an antenna to be used, the folding mobile phone comprising: an upper-and-lower-connections switching circuit 10 for connecting to a lower circuit board 7; and an upper-and-lower-boards connecting means 9 for connecting an upper circuit board 6 with the upper-and-lower-connections switching circuit 10, wherein, at the upper-and-lower-connections switching circuit 10, an electrical connection state between the upper circuit board 6 and the lower circuit board 7 is switched by turning the PIN diode on and off based on the antenna selection signal from the control unit. This provides an appropriate connection state for the selected antenna and thus improves the antenna characteristics of both antennas.

IPC 8 full level
H01Q 1/24 (2006.01); **H04M 1/00** (2006.01); **H04M 1/02** (2006.01); **H04W 88/02** (2009.01)

CPC (source: EP US)
H01Q 1/243 (2013.01 - EP US); **H04B 7/0808** (2013.01 - EP US); **H04B 7/0811** (2013.01 - EP US); **H04M 1/0214** (2013.01 - EP US); **H04M 1/0245** (2013.01 - EP US)

Citation (search report)
• [X] WO 2004010530 A1 20040129 - MATSUSHITA ELECTRIC IND CO LTD [JP], et al
• [X] EP 1258943 A1 20021120 - MITSUBISHI ELECTRIC CORP [JP] & EP 1538694 A1 20050608 - MATSUSHITA ELECTRIC IND CO LTD [JP]
• See references of WO 2006109764A1

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
EP 1870958 A1 20071226; **EP 1870958 A4 20080521**; **EP 1870958 B1 20091028**; CN 101156278 A 20080402; CN 101156278 B 20110608; DE 602006010047 D1 20091210; JP 2006295622 A 20061026; JP 4826880 B2 20111130; US 2009054113 A1 20090226; US 8315677 B2 20121120; WO 2006109764 A1 20061019

DOCDB simple family (application)
EP 06731497 A 20060410; CN 200680011570 A 20060410; DE 602006010047 T 20060410; JP 2005114731 A 20050412; JP 2006307550 W 20060410; US 90835606 A 20060410